

APPENDIX M

SCOPE OF WORK

Military Road/Missouri Avenue Transportation Study

Scope of Work

October 2002

Purpose

The District Department of Transportation (DDOT) proposes to investigate traffic management and truck management improvements in the Military Road and Missouri Avenue Corridor from Blair Road, NE to Wisconsin Avenue, NW. These efforts are in response to citizen concerns regarding speeding traffic, excessive truck traffic and other safety concerns. The purpose of the study is to examine existing and future traffic conditions in the study area and to determine short-term and long-term traffic management and infrastructure improvements to reduce traffic congestion, especially during peak morning and evening travel hours, reduce truck traffic, improve traffic and pedestrian safety and improve access to local businesses.

Study Area

The “study area” for this project includes the following area:

- Military Road NW from Wisconsin Avenue NW to Georgia Avenue NW and Missouri Avenue NW from Georgia Avenue NW to Blair Road NE.

Definition of Work

Berger will examine existing and projected traffic conditions in the study area and make recommendations to reduce truck traffic, and improve mobility and traffic safety. Over a 20-week period, Berger will investigate current and future needs regarding vehicle, pedestrian and bicycle mobility and safety and work in close coordination with community stakeholders in addressing their traffic and safety concerns.

Description of Work to be Performed

Task 1: Scoping Meeting

Berger will develop a meaningful community participation process that will consist of at least four meetings with community stakeholders in the study area. The purpose of these meetings will be to obtain input for development of the traffic management concept designs. The first meeting will be held with Advisory Neighborhood Commission 3-E, 3-F, 3-G, 4-A, 4-B 4-C and 4-D, and other local community groups and stakeholders to discuss the proposed scope of work and schedule for the traffic study, and receive public comment. This meeting will be scheduled for the second week of the study, or as soon as practical for appropriate public notification. The aim of this meeting will be to announce the project to the neighborhoods, outline the projected timeframe for the study and introduce the contractor to community stakeholders. This meeting will also allow for community input in refining the study scope of work. A central location that serves both the east and west sides will be sought for each meeting.

Scoping meetings will include agency coordination meetings with the staff of DDOT's Office of Policy and Planning, and Traffic Services Administration, the D.C.'s Office of Planning, the ANC's and other Civic Groups as identified by the DDOT.

For **each** public meeting, Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. It is assumed that the locations will be public spaces. Janitorial charges of \$25 to \$100 per meeting (averaging \$50) are included in the budget. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record, one (1) Spanish language newspaper (if requested) and one (1) neighborhood newspaper.
- b) Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.
- c) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

Meetings with DDOT staff and DC's Office of Planning will verify both the on-going and planned studies and development activities within the study area. Based on the information collected from these meetings, a preliminary scope of work will be prepared before the first community meeting. With the Community input, Scope of Work and Budget for this Task Order will be finalized. Scope changes that would result in additional work after the first community meeting shall be discussed with DDOT's OPP Project Manager as a change order.

The second public meeting will occur after Task 2 has been completed and while Task 3 and 4 are still under development. The third public meeting will be held after Task 5 is completed. The fourth public meeting will be held after Task 7 is completed. With the assistance of the Division of Transportation and the Office of Planning, Berger will develop a project contact/ mailing list of parties within the study area and other interested parties. Berger will also post study information on the DDOT web site. If DDOT so requests, Berger will secure a court reporter to record discussion and comments for up to two (2) of the four public meetings.

Task #1 to be completed by the end of Week Two

Task 2: Collect and Consolidate Data

The contractor will collect data on the following elements:

- 2.01** *Existing traffic volumes and level of service (LOS) for roadway segments within the study area. This includes mapping, aerial photography, historical research and other materials available from the DC Office of Planning, DPW Traffic Services and Transportation Planning, and other District and Federal government agencies.*

Berger will meet with DC Offices of Planning, Traffic Services and Transportation Planning during week 2 or as soon as DC staff are available to identify and obtain relevant materials, maps and studies. These meetings are also intended to identify whether other studies or projects are either underway or planned by other divisions that could complement or compromise the current study. It is assumed for budget purposes that aerial photography, maps (including digital GIS files), studies and reports will be provided to Berger free of charge for its use during the study. Materials may be returned to DC staff at the conclusion of the project upon request.

Traffic volumes and LOS will be used to confirm the definitions of different segments of Military Highway as primarily Collector or Arterial roadways, with the accompanying implications for traffic calming measures that may be considered based on District of Columbia Traffic Calming Policies and Guidelines.

Accident Data- Berger will obtain records of traffic accidents for all key intersections and links within the corridor from the DDOT's Traffic Services Administration (TSA) covering the most recent three-year period for which data is available. Berger will analyze the data to identify safety-deficient locations along the Corridor.

Berger will also contact the appropriate Federal and Local officials to determine the historic or archeological significance of properties along the corridor, to ensure that any streetscape strategies that may be recommended are compatible with such designations.

2.02 Field reconnaissance of the corridor area noting existing land uses, existing roadway geometric and traffic control conditions, traffic flow patterns, transit facilities and services, pedestrian facilities, bicycle facilities (if any), as well as opportunities and constraints pertaining to access from the intersecting sidestreets and driveways.

Berger will first examine current land use maps for the area, noting traffic generators and key sensitive facilities such as St. John's High School and the Home for Troubled Youth. Berger will conduct windshield and walking surveys along the corridor to obtain a comprehensive understanding of current conditions, constraints, and opportunities for improvements. Points of particular interest will be photographed for inclusion in public meetings and reports.

2.03 Collect land use and transportation information from existing reports on proposed future development projects in the project area, including number of proposed residences, square footage of commercial and office space, number of proposed parking spaces, and projected vehicle trips per day. The contractor shall review existing traffic management plans prepared by project proponents and prepare an analysis of the impact of the projected future traffic of these various proposed future development projects on the existing transportation infrastructure.

Berger will review plans and proposals that 1) have been filed with the DC Office of Planning, 2) are consistent with the Master Plan, and 3) in the opinion of the DC Office of Planning, are likely to be approved for development. Plans that do not

meet these criteria will be reviewed at the request of the Project Manager, in coordination with the DC Office of Transportation Planning. Berger will evaluate such projects' traffic management plans in the context of existing and projected "no-build" traffic demand in the corridor.

2.04: *Perform Turning Movement Counts at key intersections during the morning peak period and the afternoon peak period on typical weekdays. Up to ten key intersections will be included within the approved scope of work. For planning purposes, the ten intersections are as follows:*

1. Missouri Avenue and North Capitol Street,
2. Missouri Avenue and New Hampshire Avenue NW
3. Missouri Avenue and Kansas Avenue (Kennedy Street) NW
4. Missouri Avenue and 5th Street NW
5. Military Road (Missouri Ave.) and Georgia Avenue
6. Military Road and 16th Street
7. Military Road and Nebraska Avenue
8. Military Road and Connecticut Avenue
9. Military Road and Reno Road
10. Military Road and Wisconsin Avenue

The list of key intersections will be refined during the initial scoping meeting with local ANCs and neighborhood citizens. The data collected will be analyzed using the Highway Capacity Manual procedures and software such as SYNCHRO, CORSIM, Etc. to determine the Level Of Service (LOS) and to identify any operational and safety constraints, particularly within the vicinity of the schools.

2.05 *Mechanical/continuous vehicle volume, speed and classification survey at locations as agreed upon in the study area, covering a two-week or more period. Up to four locations will be included. The preliminary list of locations is as follows:*

LOCATION	CLASSIFICATION
Between Connecticut Avenue and Nebraska Avenue	Minor Arterial
Between Oregon Avenue and 14 th Street	Principal Arterial
Between 14 th Street and Georgia Avenue	Urban Freeway
Between Georgia Avenue and Kansas Street	Principal Arterial

2.06 *Travel time and delay studies along the Corridor, during the morning and afternoon peak periods noting sections and nodes experiencing delays including the intersecting roadways.*

This task would include observation of movements that could result in neighborhood traffic intrusion. We shall obtain traffic-accident records for all key intersections and roadway links along the Corridor over the most recent 3-year period for which such data is available.

2.07 *Generalized origin-destination observations at key portal points along the corridor-see item 2-10.*

2.08 *Parking Surveys:* Because on-street parking occurs along various segments of the corridor, the project team recommends a survey assessment to evaluate the impact of parking on traffic movement in the corridor.

2.09 *Queuing observation*

Berger will record queuing on major roads in the study area using mechanical and visual observations. Queuing will be observed during the turning count observations, with specially designed forms.

Additional hours are provided in case limited additional side roads or limited weekend observations are required. Berger will conduct support analyses with HCM software and SYNCHRO runs.

2.10 *Origin-Destination Surveys and Vehicle Classification Counts, focusing on the number and type of truck traffic occurring in the study area, especially truck traffic generated by major development projects in the Friendship Heights community.*

Residents have expressed concerns regarding truck traffic, and whether it is intended for local, neighborhood requirements, or for through-travel. This can only be answered by identifying the actual origins and destinations of trucks using the road.

Berger proposes to conduct an origin-destination (O-D) study of truck traffic along the corridor, using a sample of trucks through a direct-intercept survey approach. Auto O-D may be obtained through a tandem postcard distribution effort. The auto O-D is budgeted for Friendship Heights but not for Military Road. Attachment 1 provides additional detail on the methodology and potential drawbacks of such a survey approach. Potential locations have been identified along Military Road and Missouri Avenue that will require elimination of on-street parking during the day in question, necessitating planning and cooperation with DC Police. If an intercept survey is determined to be completely infeasible after further examination of traffic volumes and discussions with police, Berger will discuss other options with the project manager, such as license plate tracking.

Following the survey, O-D results will be geocoded and tabulated to identify distribution patterns, and to enumerate “local” versus “through” traffic for both trucks and auto.

2.11 *Prepare a brief Report summarizing the Data and analyses performed according to Sub-tasks 2.01 thru 2.10.*

Berger will prepare a report summarizing key findings from the data collection and initial analysis efforts. This will include graphics, tables and maps to identify issues such as accident locations, truck and auto traffic volumes, speeding patterns, and

“local” versus “through” truck and auto volumes. It should be noted that, depending on the timing of postcard responses, the auto survey data may be incomplete at the time of the report deadline.

2.12 Public Meeting

Berger will secure the location in cooperation with the Project Manager, provide visuals, sign-in sheets, comment forms and talking points. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record, one (1) Spanish language newspaper (if DDOT requests) and one (1) neighborhood newspaper. Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.
- b) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

Task #2 to be completed Week Eight

This Public Meeting will be scheduled for Week 9.

Task 3: Short-term Options

Berger will analyze the current and projected future vehicular, bicycle and pedestrian traffic conditions and identify short-term options which could be implemented within 12 months to alleviate the impact of truck traffic, improve mobility, safety and reduce congestion. Short-term options will include traffic control measures such as increased enforcement of speed regulations, traffic calming measures, improved signage, signalization, channelization, etc. Measures such as access restrictions and turning restrictions may be considered under either short-term or long-term options, depending on site-specific conditions.

Berger will work closely with the Project Manager to ensure that proposed traffic calming, signage and signalization measures are consistent with District of Columbia policies, as well as corresponding to neighborhood wishes. Traffic calming options may be recommended to be implemented on a trial or temporary basis for further evaluation, prior to implementing a permanent solution. Berger will analyze speed, congestion and capacity impacts from any proposed recommendations. As part of this analysis Berger will calculate the impact of each proposed improvement on mobility, safety, and level of service within the study area. Berger will use Synchro software to analyze average delays, queues and travel times along the corridor both with and without the recommended short-term options. Berger will also prepare a brief report summarizing study findings and recommended short-term improvements.

Task #3 to be completed Week 12

Task 4: Long-term Options

Berger will analyze the current and projected future traffic situation and identify long-term options to reduce the impact of truck traffic, improve mobility and safety and reduce congestion. Options will include measures such as road widening, intersection modifications, and other long-term improvements that would take longer than 12 months to implement. Access and turning restrictions may also be proposed as either long-term or short-term options. Berger will also identify methods of improving transit, pedestrian and bicycle connections, such as sidewalk improvements to bus stops, striping roadways for bike lanes in conjunction with a roadway improvement, etc.

As part of this analysis Berger will calculate impact of each proposed improvement on mobility, safety, and level of service. Berger will also use Synchro to analyze average delays, queues and travel times along the major corridor both with and without the recommended long-term options. Berger will prepare a brief report summarizing findings and recommended long-term improvements.

Task #4 to be completed Week 12

Task 5: Draft Report

Berger will prepare a draft report of findings and recommendations regarding traffic and safety improvements from Tasks 2, 3 and 4, including budget estimates and schedules for recommended short and long term improvements. The report to a large extent will incorporate the reports prepared for Task 2, 3 and 4, with additional organization, an Introduction, and an Executive Summary. Berger will make 20 copies available to District and Federal agencies, and stakeholder groups.

Task #5 to be completed Week 13

Task 6: Public meeting

Berger will conduct a public meeting to review options with ANCs 3-E, 3-F, 3-G, 4-A, 4-B 4-C and 4-D and other community groups and stakeholders.

Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record, one (1) Spanish language newspaper (if DDOT requests) and one (1) neighborhood newspapers.
- b) Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.

- c) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

Task #6 to be completed Week 14

Task 7: Final Report

Berger will incorporate comments from the public meeting and District and Federal agencies into a final report, including budget estimates and schedules for recommended short and long term improvements, and make 20 copies available to District and Federal agencies, and stakeholder groups.

Task #7 to be completed Week 18

Task 8: Public Meeting

Berger will conduct a final public meeting to review the final report with the ANCs 3-E, 3-F, 3-G, 4-A, 4-B 4-C and 4-D and other community groups and stakeholders.

Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record, one (1) Spanish language newspaper (if DDOT requests) and one (1) neighborhood newspaper. Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.
- b) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

Task #8 to be completed Week 20. The meeting is proposed to be held in Week 19 so as not to overlap with the week of the Friendship Heights Meeting.

Deliverables

- ◆ Detailed scope of work and study schedule and project budget.
- ◆ Draft report on findings and preliminary list of recommended short-term and long-term improvements
- ◆ Draft report of short-term and long-term improvements
- ◆ Final report of short-term and long-term improvements
- ◆ Visual aids including maps or aerial photos of study area as needed
- ◆ Monthly progress reports

Coordination

Consultant will work closely with the DPW/DDOT/Traffic Services Administration, the ANC 3-E, 3-F, 3-G, 4-A, 4-B 4-C and 4-D and other community groups, stakeholders and the DC Office of Planning.

Key Dates/Schedule

Week 3: Conduct a scoping meeting with Advisory Neighborhood Commissions 3-E, 3-F, 3-G, 4-A, 4-B 4-C and 4-D and other community groups.

Week 8: Determine existing traffic volumes and level of service for roadway segments within the study area. Identify turning motions at key intersections.

Week 9: Public Meeting

Week 12: Identify short-term and long-term improvements to improve mobility, safety and reduce congestion.

Week 13: Draft Report

Week 14: Public Meeting

Week: 18/20: Final Report and Public Meeting